

## **I. Written Statement of Substance of Interview**

Applicant and his attorney thank Examiner Rowan for granting the interview which was conducted during regular business hours at the office of the USPTO on July 3, 2007.

Applicant presents the following written statement of the substance of the interview pursuant to MPEP § 713.04:

**Persons participating in the interview:** Examiner Kurt Rowan and Robert W. Dickerson, attorney for applicant.

**Type of interview:** In person.

**Exhibits shown and demonstration presented:** Applicant's product.

**Claim(s) discussed:** pending claim 1.

**Specific prior art discussed:** Bailey WO1984004022A1; Fly-Bye Shock Strip, which was presented in the 6<sup>th</sup> Submission of Prior Art Under 35 U.S.C. 301 by Robert D. Fish ("6<sup>th</sup> Fish Submission"), and which was already of record having been presented by Applicant to the USPTO in an IDS and considered by the Examiner (see 9/29/05 Office Action); Ecopic product (as shown in USP 6,006,698); and Bird B Gone Shock Track (as shown in USP 6,283,064).

**Agreement reached:** none.

## **II. Proposed Amendment After Final with Remarks**

Applicant respectfully requests consideration of this proposed Amendment after final rejection (see Office Action mailed 06/16/06), which for the reasons stated below is believed to place all of the claims as now set forth in the Listing of Claims even more clearly into a condition for allowance. This Proposed Amendment After Final supersedes the previously filed Requests for Reconsideration and proposed Amendments After Final.

For ease of reference and discussion, the proposed amendment to Claim 1 in which new text is underscored and deleted text is ~~stuck through~~ is set forth here as well as in the attached Listing of Claims:

Claim 1: An electric deterrent device for attachment to a surface comprising:

- a) an elongate base constructed of an extruded, flexible, non-conductive plastic material, said base having a cross-sectional configuration that includes a first side that will at least in part lie against the surface, and a second side, opposite said first side, said second side having at least two spaced apart areas that are separated by a non-conductive area; which are of a non-conductive material;
- b) said base being attachable to either a flat or curved surface;
- c) at least a pair of electricity conducting elements attached to said spaced apart non-conductive areas of said base, each said element comprising three or more strands interwoven to form a braided element rather than a mesh comprised of warp and weft strands in perpendicular arrangement and rigidly attached to one another at the warp/weft intersections, wherein when said base is bent in convex or concave flex the compression or extension stress placed on said braided elements is at least partially absorbed by individual strands expanding apart from, or contracting towards, other strands; one another;
- d) said braided elements being attachable respectively to the positive and negative terminals of a power source; and
- e) said braided elements attached to said spaced apart areas on said base by sewing in which both of the braided elements are securely attached to said base, but allow a substantial number of the individual strands within each said braided element to move as the base is flexed.

It is respectfully submitted that this and the other claims as amended are clearly allowable over Bailey (and the other art of record) for the reasons discussed below. Accordingly, Applicant requests that this Proposed Amendment After Final be entered, and a Notice of Allowance issued as to all claims listed below.

The disclosure by Bailey relates generally to an electric device for deterring birds that might land on “the deck, roof or **other flat surface** and immediately walk to the gunwale for a view of the water.” (Page 1, lines 32-33, emphasis added). Bailey later reiterates that his focus is on protecting a “broad” and “horizontal” surface. (Id. Page 2, lines 4-5, and page 3, lines 10-16 and 23-24). In other words, Bailey’s focus was directed primarily to such surfaces, and there was no need for him to consider, and he did not consider, discuss or disclose, the design requisites for a device that could be attached to a radically curved surface in addition to a relatively flat, horizontal (and typically, broad) surface.

Bailey then discloses three embodiments for use on these relatively flat surfaces: Firstly, if the boat deck is constructed of timber or fiberglass (that is, a non-conductive material), then the “conduction means are flat metal ribbons which are laid in parallel pairs closely-spaced along the surface of the boat . . .” and attached directly to it by adhesive tape. (Page 2, lines 14-20).<sup>1</sup> Secondly, if the boat is constructed of metal, then “a single conductor can be laid over the boat insulated therefrom by a thin ribbon insulator.”<sup>2</sup> (Page 2, lines 21-23). Thirdly, instead of attaching the conductive element(s) directly to the boat surface, “it may be instead affixed upon a plastics sheeting which can be laid out and recovered [from the boat deck] as desired.” (Page 5, lines 5-7).

Thus, there is no discussion of, or teaching with respect to, creating a **flexible** deterrent device that is designed for attachment not only to flat surfaces, but also to **curved** surfaces as well. As the prior art of record shows, there are any number of electric deterrent devices that

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<sup>1</sup> In this embodiment, there is no need for an insulation because the boat surface itself is insulating. Bailey also discloses laying the closely-spaced pairs “upon a common insulating layer” (page 4, lines 36-37). This is a bit confusing, since Bailey uses the “closely-spaced pairs” only with the timber or fiberglass boat that doesn’t require an insulating layer. The most reasonable interpretation of this statement seems to be that by “common insulating layer” Bailey was referring to the “plastics sheeting” in the third embodiment discussed *infra*.

<sup>2</sup> In this instance, the metal boat surface as the “ground” so only a single “hot” conductive element is used.

have been designed to be attached to relatively flat surfaces, and very few that have tried to create an effective electric deterrent device for attachment to both flat and radically curved surfaces. And Bailey is of the former, not the latter. In fact, the words “flexible” or “curve” or “curved” don’t even appear anywhere in the Bailey disclosure.<sup>3</sup> Not once. Not surprisingly, nor is there any reference or teaching within Bailey as to how his device would be attached to a curved surface.

Also, Bailey provides scant disclosure or teaching as to the “insulating layer” and nothing that teaches or suggests the **extruded** elongate flexible base of the current device. The only descriptive references in Bailey to the insulating layer is that it is a “thin ribbon insulator” (page 2, line 24), or a “thin insulating layer” (page 3, line 25), a “thin underside electrically insulating layer” (page 4, lines 29-30), or a “plastics sheeting” (page 5, line 9).<sup>4</sup>

Therefore, Applicant respectfully suggests that Bailey lacks the important “flexible base” element of the pending invention.

Very significantly on this point, **even Bird B Gone’s attorney concedes as much** (see claim chart on page 1 of the 4<sup>th</sup> Fish Submission wherein there is no reference to any aspect of Bailey as showing a “Flexible base.”). For ease of reference, that portion of the 4<sup>th</sup> Fish Submission is reproduced here:

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<sup>3</sup> Bailey describes the surfaces for possible application of his device as being “moored boats, the coping and cornices of buildings, railings and the like” (page 1, lines 5-6), the “upper portion of the rail” (page 1, line 37), the “topside of rigging” (page 3, line 33) and the “topside of a metal rail” (page 3, line 35) – all relatively straight, flat surfaces. The embodiments shown and described, however, are all attached to a boat deck surface.

<sup>4</sup> Bailey does indicate that one of the conductive elements could be “supported in a raised (or shielded) position” (page 5, line 10), but does not provide any description as to how that “raised position” would be obtained. Given the complete lack of any such description, and the other and repeated references to the “thin insulating layer,” it is more likely that Bailey would have used a separate shimming element to raise the conductive element. More importantly, this brief reference to “raised position” does not in any way teach or suggest the extruded flexible base being used here.

S No.	Patent Number	Braided element with three or more strands	Braided element attached to base by sewing	Flexible base	Application: Animal / Bird deterrent
7.	WO1984004022A1	Claims 2 and 4, Page 5 lines 12 - 17	Claim 4, Page 5 lines 12 - 17		Claim 1 and Page 1 lines 1-5

As this clearly shows, even the attorney for the copier Bird B Gone does not contend that Bailey teaches or suggests a flexible base, let alone one that is extruded. The attorney for Bird B Gone also submitted a “5<sup>th</sup> Submission of Prior Art Under 35 U.S.C. 301” on April 3, 2007 (“5<sup>th</sup> Fish Submission”), which was responsive to Applicant’s Reply to the 4<sup>th</sup> Fish Submission. The 5<sup>th</sup> Fish Submission similarly did not contend that Bailey disclosed a “Flexible base.” Nor does the 6<sup>th</sup> Fish Submission. Accordingly, it is beyond dispute that it does not, such that Bailey does not anticipate the pending claims.

At bottom, the amended claim element that now calls for an elongate extruded flexible base is more than sufficient to distinguish Bailey, and to render the claims patentable. However, there is more.

Also very significantly, neither of the 4<sup>th</sup>, 5<sup>th</sup> or 6<sup>th</sup> Fish Submissions contended that Bailey shows the “flex aspect” of this invention in which individual strands within the attached braided elements move relative to one another as the base is flexed. Nor could the Fish Submissions have so contended, because Bailey plainly does not disclose that aspect of this invention. That the Fish Submissions do not content otherwise is simply clear confirmation of that fact. Accordingly, this is yet another important distinction between what is shown in Bailey and the claimed invention here, and shows why this invention is patentable over Bailey (and the other prior art of record).

Similarly, although Bailey does mention that the conductive element can be “sewn,” there is no teaching whatsoever in Bailey as to any aspect of that sewing, or as to any resultant

interaction between the manner of sewing and the ability of the individual strands of the sewn braided element to expand or contract after being sewn.

Regarding sewing, Bailey includes, in total, exactly two mentions of the word “sewn” and absolutely nothing else on the subject. Therefore, Bailey’s teachings in that regard are nothing more than a recognition, as we have seen in the other prior art of record, that sewing can be used to attach wire to a substrate material. Like all the other prior art of record, however, Bailey says nothing at all about the intended interaction of the braid relative to the flexible extruded base after sewing and during flex. In the invention here, and as now even more clearly spelled out in the amended claims, the braids are attached by sewing in which the braids are very securely attached to the base, but in a fashion that after being sewn the width of the braids remain free to expand and contract as the individual strands within each said braided element can move as the base is flexed. There is nothing at all in Bailey that teaches or suggests this result. And, as noted above, **neither of the 4<sup>th</sup>, 5<sup>th</sup> or 6<sup>th</sup> Fish Submissions assert otherwise.**

And there is a very good reason for this. First, as mentioned above, Bailey was not at all concerned about creating a device that could be used on curved surfaces. So Bailey didn’t need to be, and was not concerned about, creating either a flexible base or addressing the stress and strain that the conductive elements would have to withstand in a flexed position. This is made all the more clear in that Bailey also spells out “metallised plastics tape” as an alternative conductive element (page 5, lines 16-17). Of course, this type of metallic tape would not stand up to being twisted and subjected to stresses and strains in flexation.

Second, even though Bailey uses the term “braid” for the conductive element, he specifies it is “of the type known as “Monel” mesh sewn to the insulating layer” (page 5, lines 15-17). The metal mesh to which Bailey refers typically has perpendicularly juxtaposed warp

and weft strands that are rigidly attached to one another with a specific alignment (as in screens of a particular “mesh” size), so there is no possibility of any movement of the individual strands as is called for in this invention. The newly added text to independent claims 1 and 16 now exclude such a mesh, providing yet another reason why the claims are allowable over Bailey.

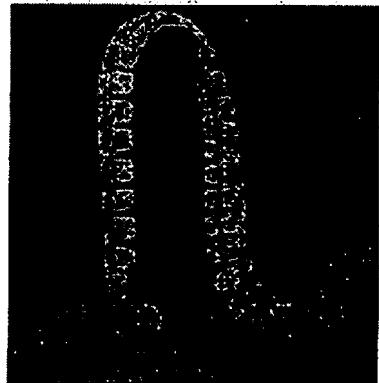
Therefore, Bailey does not teach or suggest this inventive concept regarding the sewing and the interaction of the individual strands of the sewn braid that is now even more clearly claimed in the amended Claims.

In sum, it is clear that Bailey does not disclose literally or inherently all of the claim limitations. Therefore, it does not anticipate under Section 102. Bailey is 103 prior art only, and as the Supreme Court has stated, objective indicia of non-obviousness must be taken into consideration when evidence of them is in the record. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also, Alza Corp. v. Mylan*, 464 F.3d 1286, 1289-90 (Fed.Cir. 2006)(in addition to taking the objective indicia into consideration, there must be some “reasonable expectation of success” in a Section 103 combination that is not reliant on “hindsight” in light of the current applicant’s teaching”). Here, evidence of unsuccessful efforts and copying by others is not only in the record, it stands admitted *sub silencio* by Bird B Gone’s attorney.<sup>5</sup>

To reiterate some of those facts, Bird B Gone’s flexible electric deterrent product (that is, before it saw and copied the invention here) was not the device shown in Bailey, or even anything remotely close to it. Rather, Bird B Gone’s prior product offering in the flexible electric deterrent device category was its “Shock Track” device, shown here in a picture copied from the Bird B Gone website:

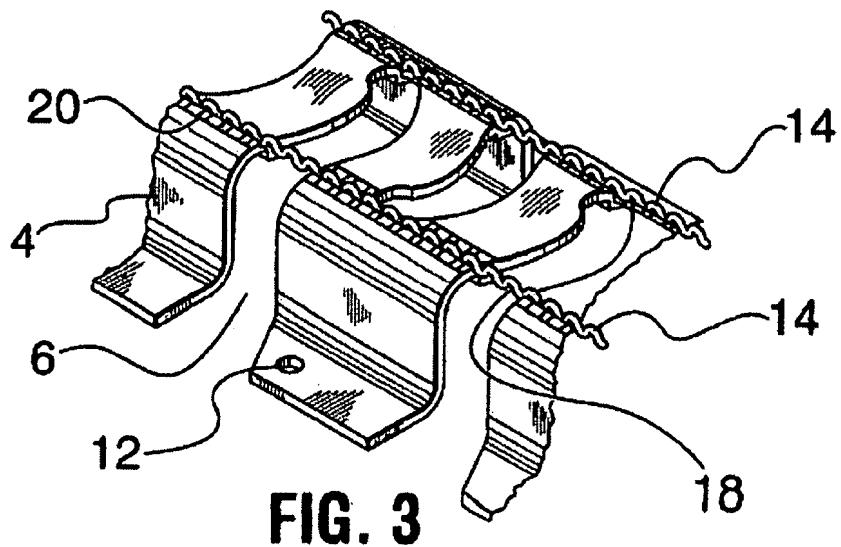
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<sup>5</sup> See the 5<sup>th</sup> Fish Submission filed in response to Applicant’s Reply to the 4<sup>th</sup> Fish Submission. In Applicant’s Reply, it is stated that “Bird B Gone . . . has slavish copied the invention disclosed in this application (as shown in prior submissions by Applicant).” Although the 5<sup>th</sup> Fish Submission took issue with other statements made by Applicant in the Reply, the 5<sup>th</sup> (and 6<sup>th</sup>) Fish Submissions do not dispute the statement regarding slavish copying of the invention by Bird B Gone, whom attorney Fish represents.



**Bends in Any Direction!**

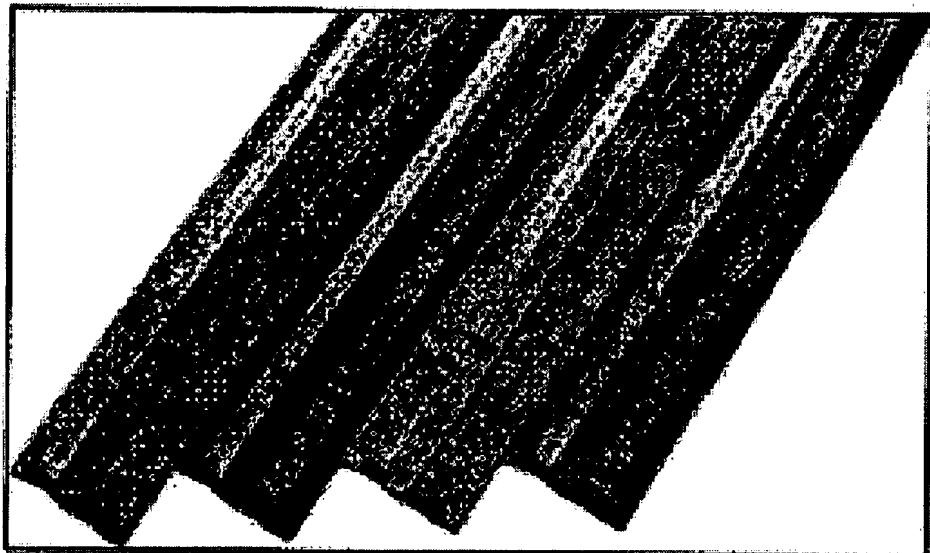
That device is also the subject of USP 6,283,064, Figure 3 of which is depicted here:



This device uses metal strips 14 that are attached to a plastic base 4. The base has a number of gaps 6 and thus is articulated so as to allow it to be bent for attachment to non-flat surfaces. The wires 14 are “crimped in undulating fashion along their length, to provide them with give so that they will not disassociate from the base when it is bent or when the wires and base expand or contract at a different rate.” (‘064 patent, claim 1). And this device attaches the wires to the base “by a plurality of jaw like clips formed integrally with the strip along its upper

surface, the clips positioned to grip and secure the wires at low points on the undulations of the wires.” (*Id.*, claim 3).

Once Bird B Gone saw the product of the instant invention, however, here is the product it introduced (shown in a photograph copied from the Bird B Gone website):

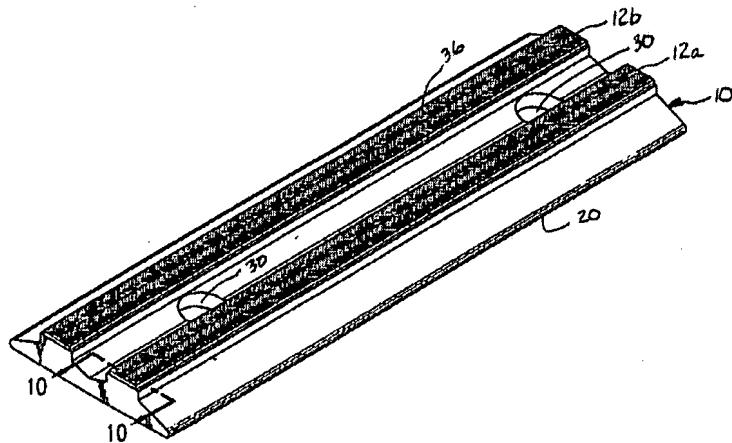


## **Available in Grey, Black, Stone & Terra Cotta**

As can be seen, the Bird B Gone device includes two braided elements that are attached by sewing to spaced apart pedestal areas on the flexible, extruded plastic base, separated by a non-conductive portion. The braided elements are sewn in such a way that when the base is flexed, the individual interwoven strands of the Bird B Gone product move, expanding or contracting laterally in order to partially absorb the flex stress. It is a direct copy of the invention claimed here, as shown in this Figure from the pending application:<sup>6</sup>

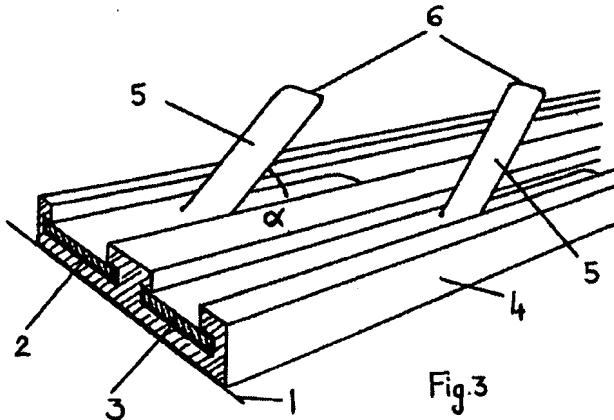
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<sup>6</sup> The only differences are insignificant modifications in the cross-sectional shape of the base. Otherwise, it directly copies the inventive elements as claimed.



Imitation is not only the truest form of flattery, here it is also strong objective indicia of non-obviousness of the claimed invention.

Another prior art attempt to design a device that could be attached to both flat and curved surfaces is that developed by a company Ecopic and shown in USP 6,006,698, depicted here:



As seen here, the Ecopic device has solid metal strips 2 and 3 as the conductive elements housed within C-channels formed in the flat base 4. Because the electric conductive strips are housed within the base as opposed to being on an upwardly exposed pedestal area, however, the Ecopic device had to go to the trouble of creating bent tabs 5 all along the length of each strip so that the bird (or other pest) may actually come into contact with both strips at the same time to receive the electric shock.

Because the stips **2** and **3** are solid, when the base/strip combination in the Ecopic device is bent, there is no “give” in the strip, so it slips within the channel (for example, if the base is curved convexly, the strips will pull inwardly, away from the ends of the base, making attachment of adjacent ends more difficult).

These features limit its effectiveness.

Thus, the Ecopic product and two Bird B Gone products discussed here graphically depict need, efforts, and then copying by others, all of which provided incredibly strong objective indicia of non-obviousness. Significantly, in the Supreme Court’s decision in *KSR*, the importance of these objective indicia was reconfirmed.

No combination of the prior art shows or suggests a pest deterrent device having sewn-to-an-extruded-base braided elements and the flex aspect of the type disclosed and claimed here. Nor is there any reasonable expectation that Bailey alone or in combination with any other prior art of record would lead to the successful result for a truly flexible electric deterrent device as is shown and claimed.

For these reasons, the following listing of claims are allowable over all prior art of record.

It is also noted that there are 27 claims in the following listing, which is the number of claims that currently stand rejected in the Final Rejection. The newly deleted claims have been deleted in order to reduce the total number of still pending claims to 27, and not for reasons of patentability of the subject matter of those deleted claims.